

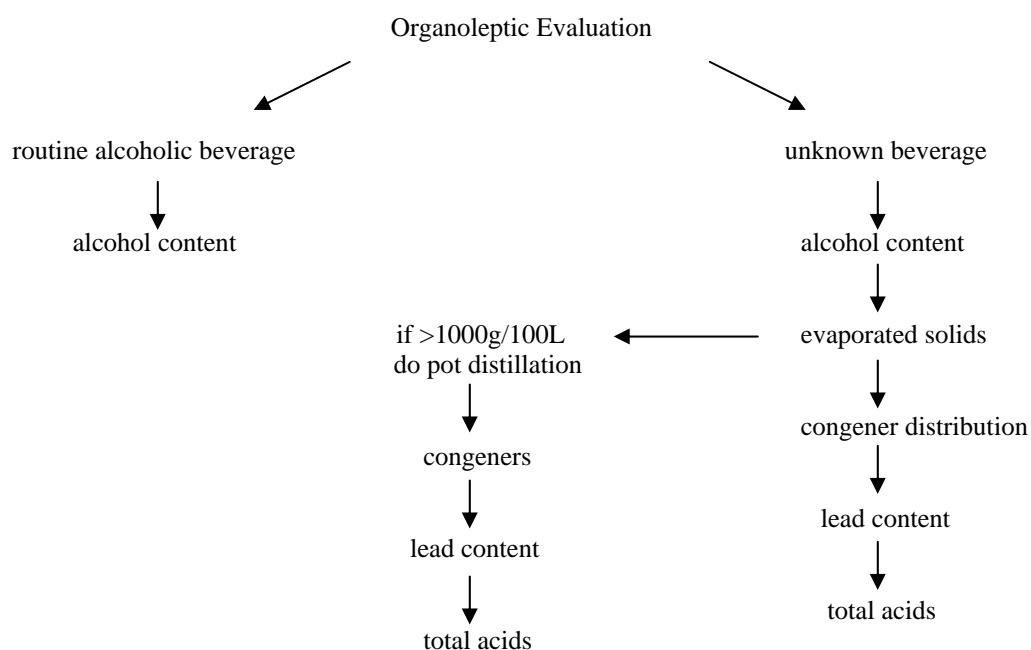
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Division of Forensic Science	Amendment Designator:
TOXICOLOGY TECHNICAL PROCEDURES MANUAL	Effective Date: 31-March-2004

34 OVERVIEW OF ABC ALCOHOLIC BEVERAGE ANALYSIS

34.1 Introduction

- 34.1.1 The Virginia Department of Alcoholic Beverage Control (ABC) regulates the sale of alcoholic beverages and enforces the alcoholic beverage control laws within the Commonwealth of Virginia. The ABC laboratory routinely analyzes products currently available for sale within the Commonwealth to ensure the products continue to meet state and federal requirements. In addition, the ABC lab will analyze new products that are proposed for sale.
- 34.1.2 The ABC lab also tests beverages submitted by law enforcement agencies. Most of these cases involve the investigation of minors in possession of alcohol, open intoxicants in vehicles and illegal sale/distribution of alcohol. These types of cases require the analysis of alcohol content. Any beverage containing greater than or equal to 0.5% ethanol is defined as an alcoholic beverage (Code of Virginia § 4.1-100).
- 34.1.3 Law enforcement agencies may also submit suspected untaxed beverages or illegally distilled beverages (e.g. moonshine). These cases require comprehensive analyses in order to determine if the submitted beverage is inconsistent with known legal beverages for sale within the Commonwealth of Virginia. Through the analysis of alcohol content, organoleptic evaluation, congener distribution, total acid content, evaporated solids and lead content, ABC examiners can distinguish these beverages from legally distilled products available for sale. In general, the presence of the following would be inconsistent with commercially available alcoholic beverages:
- 34.1.3.1 diacetyl greater than 0.1g/100 L
 - 34.1.3.2 acetoin greater than 0.1g/100 L
 - 34.1.3.3 ethyl lactate greater than 10 g/100 L
 - 34.1.3.4 lead content greater than 0.2 ppm

34.2 General Analytical Scheme for Forensic ABC Cases



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<div><p>34.3 General Analytical Scheme for Regulatory Casework</p><pre>graph TD; OE[organoleptic evaluation] --> DS[distilled spirits]; OE --> NDS[non-distilled spirits (wine)]; DS --> AC1[alcohol content]; AC1 --> ES[evaporated solids]; ES --> L1["<1000g/100L"]; ES --> L2[">1000g/100L"]; L1 --> CD[congener distribution]; CD --> TA1[total acids]; L2 --> SG1[specific gravity]; SG1 --> TA2[total acids]; NDS --> AC2[alcohol content]; AC2 --> TA3[total acids]; TA3 --> SG2[specific gravity];</pre></div>	